

WE CLAIM:

Sub B 1. In a first network with a plurality of network devices connected to a second network with a plurality of network devices, a method of content conversion, comprising the following steps:

5 receiving a first hypertext electronic document on a second network device on a first network, from a third network device on a second network;

creating a document object model from the first hypertext electronic document;

10 extracting one or more selected hypertext elements from the document object model using one or more data mining expressions from a data mining conversion language;

12 converting one or more extracted hypertext elements using one or more data mining operations from a data mining conversion language; and

15 creating a second hypertext electronic document on the second network device including one or more converted hypertext elements.

2. The method of Claim 1 further comprising sending the second hypertext electronic document to a first network device on the first network device for display.

3. A computer readable medium having stored therein instructions for causing a
20 central processing unit to execute the method of Claim 1.

4. The method of Claim 1 wherein the step of extracting one or more selected
hypertext elements includes saving references to selected hypertext elements in a symbol
5 table.

5. The method of Claim 1 wherein the step of creating a document object model
includes saving hypertext elements in a hierarchical model used to represent the first
hypertext electronic document.

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more extracted hypertext elements with a prefix including the characters "&%" to indicate an extracted hypertext element is a data mining conversion variable.

9. The method of Claim 1 wherein the second network device is a content
5 converter and the third network device is an electronic document server.

10. The method of Claim 1 wherein the second network is the Internet or an intranet.

10 11. The method of Claim 1 wherein the one or more data mining expressions
include object-oriented methods for any of: obtaining a hypertext electronic document
type; obtaining all elements in a document; obtaining the nth-number element in a list;
obtaining elements with a specified tag; obtaining one or more attributes of an element;
obtaining one or all rows in a table; obtaining one or all cells in a table row; obtaining
one or all areas in an image map; obtaining one or all sub-elements in a form; for
15 obtaining one or more options in a form-select list; or for obtaining additional sub-
elements for a selected element.

12. The method of Claim 1 wherein the step of extracting one or more selected
20 hypertext elements from the document object model using one or more data mining
expressions includes extracting one or more selected hypertext elements using a
conversion script including one or more data mining operations.

13. The method of Claim 1 wherein the step of converting one or more extracted
hypertext elements includes converting one or more original hypertext elements into
one or more converted hypertext elements, one or more original hypertext element
5 attributes into one or more converted hypertext element attributes, or adding one or
more new hypertext element attributes.

14. The method of Claim 1 wherein the step of creating a second hypertext
electronic document on the second network device including one or more converted
10 hypertext elements includes creating a second hypertext electronic document from a
hypertext template used to store one or more hypertext elements from the first hypertext
electronic document.

15. In a first network with a plurality of network devices connected to a second
15 network with a plurality of network devices, a method of content conversion,
comprising the following steps:
receiving a request for first hypertext electronic document on a second network
device on a first network from a first network device on the first network;
obtaining the first hypertext electronic document from a third network device on
20 the second network device;

applying a data mining conversion language to convert one or more original
hypertext elements from the first hypertext electronic document into one or more
converted hypertext elements;

creating a second hypertext electronic document from the one or more converted
5 hypertext elements; and

sending the second hypertext electronic document to the first network device in
response to the request for the first hypertext electronic document.

16. A computer readable medium having stored therein instructions for causing a
10 central processing unit to execute the method of Claim 15.

17. The method of Claim 15 wherein the first network device is a hand-held
device, the second network device is a content converter and the third network device is
an electronic document server.

18. The method of Claim 15 wherein the step of applying a data mining
15 conversion language includes creating one or more converted hypertext elements with a
prefix including the characters "&%" indicating the converted hypertext elements are
data mining conversion language variables.

19. The method of Claim 15 wherein the step of creating a second hypertext
electronic document from the one or more converted hypertext elements includes

substituting content from the first hypertext electronic document into one or more converted hypertext elements having a prefix including the characters "&%".

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20. A content conversion system, comprising in combination:
- a content converter for converting a first hypertext electronic document into a second hypertext electronic document using a data mining conversion language;
 - a document object model for storing hypertext elements of a first hypertext electronic document;
 - a proxy server for communicating with a plurality of network devices making requests for first hypertext electronic documents, for communicating with a context converter and with a plurality of content servers on a network providing first hypertext electronic documents;
 - a data mining conversion language with a plurality of data mining conversion expressions and a plurality of data mining conversion operations for converting a plurality of original hypertext elements into a plurality of converted hypertext elements.